

Download and Upload Modules

This section describes the Natural Connection modules available for downloading and uploading data:

- Modules for Downloading and Uploading Data
 - Modifying Work File Numbers in Subprograms
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Modules for Downloading and Uploading Data

The following table lists the Natural Connection modules that are available for downloading and uploading data.

Module Name	Function
NC-PCWS	Download source.
NC-PCWSB	Download source binary.
NC-PCWO	Download object.
NC-DDM	Download DDM.
NC-DDMWB	Download DDM binary.
NC-MAP	Download map with free rules.
NC-DDATA	Download data area.
NC-PCRST	Upload source.
NC-SAR	Upload source and run it.
NC-PCRSB	Upload source binary.
NC-PCRO	Upload object.
NC-DDMR	Upload DDM.
NC-DDMRB	Upload DDM binary.
NC-UDATA	Upload data area.

Note:

It is still possible to use the old module names starting with NTC. The old modules now call the above listed new modules. Therefore, existing program sequences etc. need not be changed.

You can access these functions on the mainframe, with the NTCPC utility.

All these modules use Natural Security, if it is installed.

The modules call subprograms to read from and write to the PC. These subprograms are provided in source and object form, so that you can modify the work file numbers that are used (see below).

Note:

When working with Entire Connection on the PC, transfer tasks for downloading and uploading - with task names different to those listed above - are also available. See the Entire Connection documentation for further information.

Modifying Work File Numbers in Subprograms

The download/upload modules use the following subprograms:

Subprogram	Used by Modules
NC-WS	NC-PCWS, NC-DDM, NC-MAP, NC-DDATA
NC-RS	NC-PCRS, NC-PCRST, NC-SAR, NC-DDMR, NC-UDATA
NC-WSB	NC-PCWSB
NC-RSB	NC-PCRSB
NC-WO	NC-PCWO, NC-DDMWB
NC-RO	NC-PCRO, NC-DDMRB

All subprograms use Work File 7.

The subprograms listed above are provided in source form so that you can make modifications to suit your requirements. If you use work file numbers other than 7, you can modify the work file number in one of the following statements in the subprograms:

```
WRITE PC number ...
```

```
READ PC number ...
```

Remember also to change the initial value for NUMBER accordingly:

```
NUMBER (N2) INIT <number>
```

Example - Subprogram NC-RS:

```

*****
*
*   NC-RS          SUBPROGRAM TO READ ONE ALPHA RECORD LENGTH 100
*                   RETURN EOF = TRUE ON END OF FILE
*                   ALSO USED FOR DATA AREAS
*
*****
*
DEFINE DATA PARAMETER
1 LINE   (A100)
1 EOF    (L)
1 FIRST  (L)

      LOCAL                                /* FOR 'NC-CHECK' */
1 FUNCTION (A8) INIT <'WORK'>
1 NUMBER  (N2) INIT <7>                    /* MUST BE THE SAME */
                                           /* AS IN READ STATEMENT */
                                           /* RETURNED METHOD NAME */
1 METHOD   (A8)
END-DEFINE
*
IF FIRST                                /* DO IT ONLY ONCE */
DO
      CALLNAT 'NC-CHECK' FUNCTION NUMBER METHOD
*
      IF METHOD NE 'PC' AND METHOD NE 'PCNEW'
      DO
      MOVE 1179 TO *ERROR-NR
      STOP
      DOEND
DOEND
*
EOF = FALSE
READ  PC 7 ONCE LINE                    /* CHANGE WORKFILE NUMBER IF DESIRED */
AT END OF FILE EOF = TRUE
END

```